

PCC-160

®

PHASE COHERENT CARDIOID® MICROPHONE



The Crown PCC-160 (Phase Coherent Cardioid®) is a surface-mounted supercardioid microphone intended for professional applications on stage floors, lecterns, conference tables, and news desks—wherever improved gain-before-feedback and articulation are important.

Similar to the Pressure Zone Microphone® (PZM®), the PCC is designed to be used on a relatively large boundary surface. Unlike the PZM, the Phase Coherent Cardioid uses a subminiature supercardioid mic capsule. Its directional polar pattern improves gain-before-feedback, reduces unwanted room noise and rejects sounds from the rear. Surface-mounting creates a “half-supercardioid” polar pattern and increases directivity 3 dB.

Since the microphone capsule is placed on a boundary, direct and reflected sounds arrive at the diaphragm in-phase. This coherent addition of direct and reflected waves increases sensitivity 6 dB and prevents phase cancellations. The mic capsule is small enough to ensure phase coherence up to the highest frequencies in the audible spectrum, resulting in a wide, smooth frequency response free of phase interference. Clarity and reach are also enhanced.

Self-contained electronics eliminate the need for an in-line preamp box. The PCC-160 can be phantom powered directly from the console or other remote power source providing 12 to 48 volts. If battery power is required, a battery supply unit can be inserted anywhere in the mic line right up to the console or mixer. A “bass tilt” switch allows the user to tailor the low-end response for particular applications.

Thanks to its low profile and black finish, the microphone becomes almost invisible in use. A side-mounted connector complements the form factor of the PCC-160, allowing the unit to be placed effectively at the stage edge, at the top of a lectern or in other tight spots. If desired, the cable can be hard-wired for bottom entry.

The heavy-gauge, all steel body protects the unit from accidental abuse. Permanent mounting is enabled by screw holes in the base. Engineering attention-to-detail has assured years of trouble-free use from this reliable microphone.

Capable of withstanding up to 120 dB SPL without distorting, the PCC-160 will never overload in practical use. Its electret condenser capsule provides a wide, smooth frequency response from 50 Hz to 18 kHz. RFI suppression is included. Self-noise is low, and sensitivity is very high to override mixer noise in distant-miking applications. Output impedance is 150 ohms, balanced.

Specifications

Type: Phase Coherent Cardioid.

Element: Electret condenser.

Frequency response (typical): 50 Hz to 18,000 Hz at 30 degrees incidence to surface. See Fig. 1.

Polar pattern: Half-supercardioid (supercardioid in the hemisphere above the primary boundary). See Fig. 2.

Impedance: 150 ohms nominal (85 ohms actual), balanced. (Recommended load impedance 1000 ohms or greater.)

Open-circuit sensitivity: 22mV/Pa* (-33 dB re 1 V/Pa*).

Power sensitivity: -31 dB re 1 milliwatt/Pa*/-123 dBm EIA.

Equivalent noise level (self noise): 22 dB typical (0 dB = .0002 dyne/cm²), A-weighted.

S/N ratio: 72 dB at 94 dB SPL.

Maximum SPL for 3% THD: 120 dB SPL.

Polarity: Positive pressure on the diaphragm produces positive voltage on pin 2 with respect to pin 3 of output connector.

Cable: 15-foot, black, two-conductor shielded cable with Switchcraft TA3F connector and A3M connector.

Operating voltage: Standard phantom power: 12 to 48 volts DC positive on pins 2 and 3 with respect to pin 1.

Current drain: 4 mA nominal.

Materials: All steel body construction.

Finish: black

Net weight: 11.5 oz. (326 g).

Fig. 1 Frequency Response

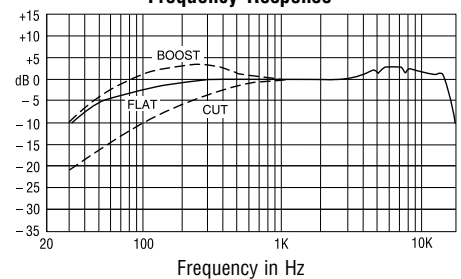


Fig. 2 Vertical Plane Polar Response

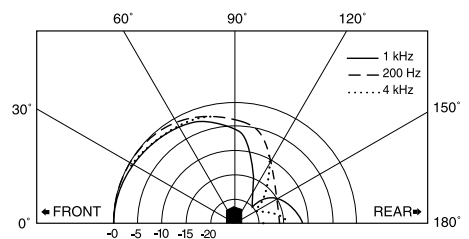


Fig. 3

